

## SEQUENCE LISTING

<110> McCarthy, Sean A.  
 Holtzman, Douglas A.  
 Goodearl, Andrew D.J.

<120> NOVEL GENES ENCODING PROTEINS HAVING  
 PROGNOSTIC, DIAGNOSTIC, PREVENTIVE, THERAPEUTIC AND OTHER  
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<130> 07334-325001

<150> US 09/128,709

<151> 1998-08-04

<150> US 60/054,645

<151> 1997-08-04

<150> US 09/130,491

<151> 1998-08-06

<150> US 60/054,966

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Val Thr Ser Asn Ala Ala Leu Thr Leu Arg Asn Phe Cys Asn Trp Gln	
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aag cag cac aac cca ccc agt gac cgg gat gca gag cac tat gac aca	143

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Cys	Ala	Ser	Leu	Asn	Gly	Val	Asn	Gln	Asp	Ser	His	Met	Met	Ala	Ser		
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Lys	His	Cys	Pro	Asp	Ala	Ala	Ser	Thr	Cys	Ser	Thr	Leu	Trp	Cys	Thr		
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&lt;211&gt; 608

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2

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Ser	Thr	Cys	Lys	Lys	Ile	Ser	Gly	Ser	Val	Thr	Ser	Ala	Lys	Pro	Gly

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 Leu Ala Cys Trp Gln Pro Ile Leu Leu Val Leu Gly Ser Val Leu  
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 gac cgc gct gtg ctg tgc cac cgc aag cgc ttt gtg gca gtc ccc gag 313  
 Asp Arg Ala Val Leu Cys His Arg Lys Arg Phe Val Ala Val Pro Glu  
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 ggc atc ccc acc gag acg cgc ctg ctg gac cta ggc aag aac cgc atc 361  
 Gly Ile Pro Thr Glu Thr Arg Leu Leu Asp Leu Gly Lys Asn Arg Ile  
 65 70 75  
 aaa acg ctc aac cag gac gag ttc gcc agc ttc ccg cac ctg gag gag 409

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Leu	Glu	Leu	Asn	Glu	Asn	Ile	Val	Ser	Ala	Val	Glu	Pro	Gly	Ala	Phe		
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Lys	Leu	Ile	Pro	Leu	Gly	Val	Phe	Thr	Gly	Leu	Ser	Asn	Leu	Thr	Lys		
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Leu	Thr	Leu	Glu	Lys	Cys	Asn	Leu	Thr	Ser	Ile	Pro	Thr	Glu	Ala	Leu		
190					195				200						205		
tcc	cac	ctg	cac	ggc	ctc	atc	gtc	ctg	agg	ctc	cgg	cac	ctc	aac	atc	793	
Ser	His	Leu	His	Gly	Leu	Ile	Val	Leu	Arg	Leu	Arg	His	Leu	Asn	Ile		
				210					215					220			
aat	gcc	atc	cgg	gac	tac	tcc	ttc	aag	agg	ctg	tac	cga	ctc	aag	gtc	841	
Asn	Ala	Ile	Arg	Asp	Tyr	Ser	Phe	Lys	Arg	Leu	Tyr	Arg	Leu	Lys	Val		
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Leu	Glu	Ile	Ser	His	Trp	Pro	Tyr	Leu	Asp	Thr	Met	Thr	Pro	Asn	Cys		
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Leu	Tyr	Gly	Leu	Asn	Leu	Thr	Ser	Leu	Ser	Ile	Thr	His	Cys	Asn	Leu		
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Thr	Ala	Val	Pro	Tyr	Leu	Ala	Val	Arg	His	Leu	Val	Tyr	Leu	Arg	Phe		
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ctc	aac	ctc	tcc	tac	aac	ccc	atc	agc	acc	att	gag	ggc	tcc	atg	ttg	1033	
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aac ttc aac cgg cag cag ccc acg tgc gcc acg ccc gag ttt gtc cag Asn Phe Asn Arg Gln Gln Pro Thr Cys Ala Thr Pro Glu Phe Val Gln 385 390 395			1321
ggc aag gag ttc aag gac ttc cct gat gtg cta ctg ccc aac tac ttc Gly Lys Glu Phe Lys Asp Phe Pro Asp Val Leu Leu Pro Asn Tyr Phe 400 405 410			1369
acc tgc cgc cgc gcc cgc atc cgg gac cgc aag gcc cag cag gtg ttt Thr Cys Arg Arg Ala Arg Ile Arg Asp Arg Lys Ala Gln Gln Val Phe 415 420 425			1417
gtg gac gag ggc cac acg gtg cag ttt gtg tgc cgg gcc gat ggc gac Val Asp Glu Gly His Thr Val Gln Phe Val Cys Arg Ala Asp Gly Asp 430 435 440 445			1465
ccg ccg ccc gcc atc ctc tgg ctc tca ccc cga aag cac ctg gtc tca Pro Pro Pro Ala Ile Leu Trp Leu Ser Pro Arg Lys His Leu Val Ser 450 455 460			1513
gcc aag agc aat ggg cgg ctc aca gtc ttc cct gat ggc acg ctg gag Ala Lys Ser Asn Gly Arg Leu Thr Val Phe Pro Asp Gly Thr Leu Glu 465 470 475			1561
gtg cgc tac gcc cag gta cag gac aac ggc acg tac ctg tgc atc gcg Val Arg Tyr Ala Gln Val Gln Asp Asn Gly Thr Tyr Leu Cys Ile Ala 480 485 490			1609
gcc aac gcg ggc ggc aac gac tcc atg ccc gcc cac ctg cat gtg cgc Ala Asn Ala Gly Gly Asn Asp Ser Met Pro Ala His Leu His Val Arg 495 500 505			1657
agc tac tcg ccc gac tgg ccc cat cag ccc aac aag acc ttc gct ttc Ser Tyr Ser Pro Asp Trp Pro His Gln Pro Asn Lys Thr Phe Ala Phe 510 515 520 525			1705
atc tcc aac cag ccg ggc gag gga gag gcc aac agc acc cgc gcc act Ile Ser Asn Gln Pro Gly Glu Gly Glu Ala Asn Ser Thr Arg Ala Thr 530 535 540			1753



gtg cct ttc ccc ttc gac atc aag acc ctc atc atc gcc acc acc atg 1801  
 Val Pro Phe Pro Phe Asp Ile Lys Thr Leu Ile Ile Ala Thr Thr Met  
 545 550 555

ggc ttc atc tct ttc ctg ggc gtc gtc ctc ttc tgc ctg gtg ctg ctg 1849  
 Gly Phe Ile Ser Phe Leu Gly Val Val Leu Phe Cys Leu Val Leu Leu  
 560 565 570

ttt ctc tgg agc cgg ggc aag ggc aac aca aag cac aac atc gag atc 1897  
 Phe Leu Trp Ser Arg Gly Lys Gly Asn Thr Lys His Asn Ile Glu Ile  
 575 580 585

gag tat gtg ccc cga aag tgc gac gca ggc atc agc tcc gcc gac gcg 1945  
 Glu Tyr Val Pro Arg Lys Ser Asp Ala Gly Ile Ser Ser Ala Asp Ala  
 590 595 600 605

ccc cgc aag ttc aac atg aag atg ata tgaggccggg gcgggggggca 1992  
 Pro Arg Lys Phe Asn Met Lys Met Ile  
 610

gggacccccg ggcgggccggg caggggaagg ggccctggccg ccacctgctc actctccagt 2052  
 ccttcccacc tcttccctac ccttctacac acgttctctt tctcccctcc cgcctccgctc 2112  
 ccttgctgcc ccccgccagc cctcaccacc tgccctcctt ctaccaggac ctcagaagcc 2172  
 cagacctggg gacccacct acacaggggc attgacagac tggagtttaa agccgacgaa 2232  
 ccgacacgcg gcagagtcaa taattcaata aaaaagttaac gaactttctc tgtaacttgg 2292  
 gtttcaataa ttatggattt ttatgaaaac ttgaaataat aaaaaaaaaa aaaaaaaag 2351

<210> 4

<211> 614

<212> PRT

<213> Homo sapiens

<400> 4

Met Leu Ala Gly Gly Val Arg Ser Met Pro Ser Pro Leu Leu Ala Cys  
 1 5 10 15  
 Trp Gln Pro Ile Leu Leu Leu Val Leu Gly Ser Val Leu Ser Gly Ser  
 20 25 30  
 Ala Thr Gly Cys Pro Pro Arg Cys Glu Cys Ser Ala Gln Asp Arg Ala  
 35 40 45  
 Val Leu Cys His Arg Lys Arg Phe Val Ala Val Pro Glu Gly Ile Pro  
 50 55 60  
 Thr Glu Thr Arg Leu Leu Asp Leu Gly Lys Asn Arg Ile Lys Thr Leu  
 65 70 75 80  
 Asn Gln Asp Glu Phe Ala Ser Phe Pro His Leu Glu Glu Leu Glu Leu  
 85 90 95  
 Asn Glu Asn Ile Val Ser Ala Val Glu Pro Gly Ala Phe Asn Asn Leu  
 100 105 110  
 Phe Asn Leu Arg Thr Leu Gly Leu Arg Ser Asn Arg Leu Lys Leu Ile  
 115 120 125  
 Pro Leu Gly Val Phe Thr Gly Leu Ser Asn Leu Thr Lys Leu Asp Thr  
 130 135 140  
 Arg Glu Asn Lys Ile Val Ile Leu Leu Asp Tyr Met Phe Gln Asp Leu  
 145 150 155 160  
 Tyr Asn Leu Lys Ser Leu Glu Val Gly Asp Asn Asp Leu Val Tyr Ile  
 165 170 175  
 Ser His Arg Ala Phe Ser Gly Leu Asn Ser Leu Glu Gln Leu Thr Leu

<210> 5

<211> 979  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (58)...(837)

<400> 5

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                                     Met
                                     1

gcg ggg tcg ccg ctg ctc tgg ggg ccg cgg gcc ggg ggc gtc ggc ctt      108
Ala Gly Ser Pro Leu Leu Trp Gly Pro Arg Ala Gly Gly Val Gly Leu
      5                      10                      15

ttg gtg ctg ctg ctg ctc ggc ctg ttt cgg ccg ccc ccc gcg ctc tgc      156
Leu Val Leu Leu Leu Leu Gly Leu Phe Arg Pro Pro Pro Ala Leu Cys
      20                      25                      30

gcg cgg ccg gta aag gag ccc cgc ggc cta agc gca gcg tct ccg ccc      204
Ala Arg Pro Val Lys Glu Pro Arg Gly Leu Ser Ala Ala Ser Pro Pro
      35                      40                      45

ttg gct gag act ggc gct cct cgc cgc ttc cgg cgg tca gtg ccc cga      252
Leu Ala Glu Thr Gly Ala Pro Arg Arg Phe Arg Arg Ser Val Pro Arg
      50                      55                      60                      65

ggt gag gcg gcg ggg gcg gtg cag gag ctg gcg cgg gcg ctg gcg cat      300
Gly Glu Ala Ala Gly Ala Val Gln Glu Leu Ala Arg Ala Leu Ala His
      70                      75                      80

ctg ctg gag gcc gaa cgt cag gag cgg gcg cgg gcc gag gcg cag gag      348
Leu Leu Glu Ala Glu Arg Gln Glu Arg Ala Arg Ala Glu Ala Gln Glu
      85                      90                      95

gct gag gat cag cag gcg cgc gtc ctg gcg cag ctg ctg cgc gtc tgg      396
Ala Glu Asp Gln Gln Ala Arg Val Leu Ala Gln Leu Leu Arg Val Trp
      100                      105                      110

ggc gcc ccc cgc aac tct gat ccg gct ctg ggc ttg gac gac gac ccc      444
Gly Ala Pro Arg Asn Ser Asp Pro Ala Leu Gly Leu Asp Asp Asp Pro
      115                      120                      125

gac gcg cct gca gcg cag ctc gct cgc gct ctg ctc cgc gcc cgc ctt      492
Asp Ala Pro Ala Ala Gln Leu Ala Arg Ala Leu Leu Arg Ala Arg Leu
      130                      135                      140                      145

gac cct gcc gcc cta gca gcc cag ctt gtc ccc gcg ccc gtc ccc gcc      540
Asp Pro Ala Ala Leu Ala Ala Gln Leu Val Pro Ala Pro Val Pro Ala
      150                      155                      160

gcg gcg ctc cga ccc cgg ccc ccg gtc tac gac gac ggc ccc gcg ggc      588
Ala Ala Leu Arg Pro Arg Pro Pro Val Tyr Asp Asp Gly Pro Ala Gly
      165                      170                      175

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ccg gat gct gag gag gca ggc gac gag aca ccc gac gtg gac ccc gag 636  
 Pro Asp Ala Glu Glu Ala Gly Asp Glu Thr Pro Asp Val Asp Pro Glu  
 180 185 190

ctg ttg agg tac ttg ctg gga cgg att ctt gcg gga agc gcg gac tcc 684  
 Leu Leu Arg Tyr Leu Leu Gly Arg Ile Leu Ala Gly Ser Ala Asp Ser  
 195 200 205

gag ggg gtg gca gcc ccg cgc cgc ctc cgc cgt gcc gcc gac cac gat 732  
 Glu Gly Val Ala Ala Pro Arg Arg Leu Arg Arg Ala Ala Asp His Asp  
 210 215 220 225

gtg ggc tct gag ctg ccc cct gag ggc gtg ctg ggg gcg ctg ctg cgt 780  
 Val Gly Ser Glu Leu Pro Pro Glu Gly Val Leu Gly Ala Leu Leu Arg  
 230 235 240

gtg aaa cgc cta gag acc ccg gcg ccc cag gtg cct gca cgc cgc ctc 828  
 Val Lys Arg Leu Glu Thr Pro Ala Pro Gln Val Pro Ala Arg Arg Leu  
 245 250 255

ttg cca ccc tgagcactgc ccggatcccg tgcaccctgg gacccagaag 877  
 Leu Pro Pro  
 260

tgcccccgcc atccccgccac caggactgct ccccgccagc acgtccagag caacttaccc 937  
 cggccagcca gccctctcac ccgaggatcc ctacccccctg gc 979

<210> 6

<211> 260

<212> PRT

<213> Homo sapiens

<400> 6

Met Ala Gly Ser Pro Leu Leu Trp Gly Pro Arg Ala Gly Gly Val Gly  
 1 5 10 15  
 Leu Leu Val Leu Leu Leu Leu Gly Leu Phe Arg Pro Pro Pro Ala Leu  
 20 25 30  
 Cys Ala Arg Pro Val Lys Glu Pro Arg Gly Leu Ser Ala Ala Ser Pro  
 35 40 45  
 Pro Leu Ala Glu Thr Gly Ala Pro Arg Arg Phe Arg Arg Ser Val Pro  
 50 55 60  
 Arg Gly Glu Ala Ala Gly Ala Val Gln Glu Leu Ala Arg Ala Leu Ala  
 65 70 75 80  
 His Leu Leu Glu Ala Glu Arg Gln Glu Arg Ala Arg Ala Glu Ala Gln  
 85 90 95  
 Glu Ala Glu Asp Gln Gln Ala Arg Val Leu Ala Gln Leu Leu Arg Val  
 100 105 110  
 Trp Gly Ala Pro Arg Asn Ser Asp Pro Ala Leu Gly Leu Asp Asp Asp  
 115 120 125  
 Pro Asp Ala Pro Ala Ala Gln Leu Ala Arg Ala Leu Leu Arg Ala Arg  
 130 135 140  
 Leu Asp Pro Ala Ala Leu Ala Ala Gln Leu Val Pro Ala Pro Val Pro  
 145 150 155 160  
 Ala Ala Ala Leu Arg Pro Arg Pro Pro Val Tyr Asp Asp Gly Pro Ala  
 165 170 175  
 Gly Pro Asp Ala Glu Glu Ala Gly Asp Glu Thr Pro Asp Val Asp Pro  
 180 185 190

Glu Leu Leu Arg Tyr Leu Leu Gly Arg Ile Leu Ala Gly Ser Ala Asp  
           195                  200                  205  
 Ser Glu Gly Val Ala Ala Pro Arg Arg Leu Arg Arg Ala Ala Asp His  
       210                  215                  220  
 Asp Val Gly Ser Glu Leu Pro Pro Glu Gly Val Leu Gly Ala Leu Leu  
   225                  230                  235                  240  
 Arg Val Lys Arg Leu Glu Thr Pro Ala Pro Gln Val Pro Ala Arg Arg  
           245                  250                  255  
 Leu Leu Pro Pro  
                   260

<210> 7  
 <211> 714  
 <212> PRT  
 <213> Mus musculus

<400> 7  
 Met Ala Arg Leu Ser Thr Gly Lys Ala Ala Cys Gln Val Val Leu Gly  
   1                  5                  10                  15  
 Leu Leu Ile Thr Ser Leu Thr Glu Ser Ser Ile Leu Thr Ser Glu Cys  
           20                  25                  30  
 Pro Gln Leu Cys Val Cys Glu Ile Arg Pro Trp Phe Thr Pro Gln Ser  
       35                  40                  45  
 Thr Tyr Arg Glu Ala Thr Thr Val Asp Cys Asn Asp Leu Arg Leu Thr  
   50                  55                  60  
 Arg Ile Pro Gly Asn Leu Ser Ser Asp Thr Gln Val Leu Leu Leu Gln  
  65                  70                  75                  80  
 Ser Asn Asn Ile Ala Lys Thr Val Asp Glu Leu Gln Gln Leu Phe Asn  
           85                  90                  95  
 Leu Thr Glu Leu Asp Phe Ser Gln Asn Asn Phe Thr Asn Ile Lys Glu  
       100                  105                  110  
 Val Gly Leu Ala Asn Leu Thr Gln Leu Thr Thr Leu His Leu Glu Glu  
       115                  120                  125  
 Asn Gln Ile Ser Glu Met Thr Asp Tyr Cys Leu Gln Asp Leu Ser Asn  
   130                  135                  140  
 Leu Gln Glu Leu Tyr Ile Asn His Asn Gln Ile Ser Thr Ile Ser Ala  
  145                  150                  155                  160  
 Asn Ala Phe Ser Gly Leu Lys Asn Leu Leu Arg Leu His Leu Asn Ser  
       165                  170                  175  
 Asn Lys Leu Lys Val Ile Asp Ser Arg Trp Phe Asp Ser Thr Pro Asn  
       180                  185                  190  
 Leu Glu Ile Leu Met Ile Gly Glu Asn Pro Val Ile Gly Ile Leu Asp  
       195                  200                  205  
 Met Asn Phe Arg Pro Leu Ser Asn Leu Arg Ser Leu Val Leu Ala Gly  
   210                  215                  220  
 Met Tyr Leu Thr Asp Val Pro Gly Asn Ala Leu Val Gly Leu Asp Ser  
  225                  230                  235                  240  
 Leu Glu Ser Leu Ser Phe Tyr Asp Asn Lys Leu Ile Lys Val Pro Gln  
       245                  250                  255  
 Leu Ala Leu Gln Lys Val Pro Asn Leu Lys Phe Leu Asp Leu Asn Lys  
       260                  265                  270  
 Asn Pro Ile His Lys Ile Gln Glu Gly Asp Phe Lys Asn Met Leu Arg  
       275                  280                  285  
 Leu Lys Glu Leu Gly Ile Asn Asn Met Gly Glu Leu Val Ser Val Asp  
   290                  295                  300  
 Arg Tyr Ala Leu Asp Asn Leu Pro Glu Leu Thr Lys Leu Glu Ala Thr  
  305                  310                  315                  320

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Asn Asn Pro Lys Leu Ser Tyr Ile His Arg Leu Ala Phe Arg Ser Val
      325                      330                      335
Pro Ala Leu Glu Ser Leu Met Leu Asn Asn Asn Ala Leu Asn Ala Val
      340                      345                      350
Tyr Gln Lys Thr Val Glu Ser Leu Pro Asn Leu Arg Glu Ile Ser Ile
      355                      360                      365
His Ser Asn Pro Leu Arg Cys Asp Cys Val Ile His Trp Ile Asn Ser
      370                      375                      380
Asn Lys Thr Asn Ile Arg Phe Met Glu Pro Leu Ser Met Phe Cys Ala
      385                      390                      395                      400
Met Pro Pro Glu Tyr Arg Gly Gln Gln Val Lys Glu Val Leu Ile Gln
      405                      410                      415
Asp Ser Ser Glu Gln Cys Leu Pro Met Ile Ser His Asp Thr Phe Pro
      420                      425                      430
Asn His Leu Asn Met Asp Ile Gly Thr Thr Leu Phe Leu Asp Cys Arg
      435                      440                      445
Ala Met Ala Glu Pro Glu Pro Glu Ile Tyr Trp Val Thr Pro Ile Gly
      450                      455                      460
Asn Lys Ile Thr Val Glu Thr Leu Ser Asp Lys Tyr Lys Leu Ser Ser
      465                      470                      475                      480
Glu Gly Thr Leu Glu Ile Ala Asn Ile Gln Ile Glu Asp Ser Gly Arg
      485                      490                      495
Tyr Thr Cys Val Ala Gln Asn Val Gln Gly Ala Asp Thr Arg Val Ala
      500                      505                      510
Thr Ile Lys Val Asn Gly Thr Leu Leu Asp Gly Ala Gln Val Leu Lys
      515                      520                      525
Ile Tyr Val Lys Gln Thr Glu Ser His Ser Ile Leu Val Ser Trp Lys
      530                      535                      540
Val Asn Ser Asn Val Met Thr Ser Asn Leu Lys Trp Ser Ser Ala Thr
      545                      550                      555                      560
Met Lys Ile Asp Asn Pro His Ile Thr Tyr Thr Ala Arg Val Pro Val
      565                      570                      575
Asp Val His Glu Tyr Asn Leu Thr His Leu Gln Pro Ser Thr Asp Tyr
      580                      585                      590
Glu Val Cys Leu Thr Val Ser Asn Ile His Gln Gln Thr Gln Lys Ser
      595                      600                      605
Cys Val Asn Val Thr Thr Lys Thr Ala Ala Phe Ala Leu Asp Ile Ser
      610                      615                      620
Asp His Glu Thr Ser Thr Ala Leu Ala Ala Val Met Gly Ser Met Phe
      625                      630                      635                      640
Ala Val Ile Ser Leu Ala Ser Ile Ala Ile Tyr Ile Ala Lys Arg Phe
      645                      650                      655
Lys Arg Lys Asn Tyr His His Ser Leu Lys Lys Tyr Met Gln Lys Thr
      660                      665                      670
Ser Ser Ile Pro Leu Asn Glu Leu Tyr Pro Pro Leu Ile Asn Leu Trp
      675                      680                      685
Glu Ala Asp Ser Asp Lys Asp Lys Asp Gly Ser Ala Asp Thr Lys Pro
      690                      695                      700
Thr Gln Val Asp Thr Ser Arg Ser Tyr Tyr
      705                      710

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&lt;210&gt; 8

&lt;211&gt; 608

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 8

Thr Arg Pro Ile Leu Val Ile His Asp Glu Gln Lys Gly Pro Glu Val  
 1 5 10 15  
 Thr Ser Asn Ala Ala Leu Thr Leu Arg Asn Phe Cys Asn Trp Gln Lys  
 20 25 30  
 Gln His Asn Pro Pro Ser Asp Arg Asp Ala Glu His Tyr Asp Thr Ala  
 35 40 45  
 Ile Leu Phe Thr Arg Gln Asp Leu Cys Gly Ser Gln Thr Cys Asp Thr  
 50 55 60  
 Leu Gly Met Ala Asp Val Gly Thr Val Cys Asp Pro Ser Arg Ser Cys  
 65 70 75 80  
 Ser Val Ile Glu Asp Asp Gly Leu Gln Ala Ala Phe Thr Thr Ala His  
 85 90 95  
 Glu Leu Gly His Val Phe Asn Met Pro His Asp Asp Ala Lys Gln Cys  
 100 105 110  
 Ala Ser Leu Asn Gly Val Asn Gln Asp Ser His Met Met Ala Ser Met  
 115 120 125  
 Leu Ser Asn Leu Asp His Ser Gln Pro Trp Ser Pro Cys Ser Ala Tyr  
 130 135 140  
 Met Ile Thr Ser Phe Leu Asp Asn Gly His Gly Glu Cys Leu Met Asp  
 145 150 155 160  
 Lys Pro Gln Asn Pro Ile Gln Leu Pro Gly Asp Leu Pro Gly Thr Ser  
 165 170 175  
 Tyr Asp Ala Asn Arg Gln Cys Gln Phe Thr Phe Gly Glu Asp Ser Lys  
 180 185 190  
 His Cys Pro Asp Ala Ala Ser Thr Cys Ser Thr Leu Trp Cys Thr Gly  
 195 200 205  
 Thr Ser Gly Gly Val Leu Val Cys Gln Thr Lys His Phe Pro Trp Ala  
 210 215 220  
 Asp Gly Thr Ser Cys Gly Glu Gly Lys Trp Cys Ile Asn Gly Lys Cys  
 225 230 235 240  
 Val Asn Lys Thr Asp Arg Lys His Phe Asp Thr Pro Phe His Gly Ser  
 245 250 255  
 Trp Gly Met Trp Gly Pro Trp Gly Asp Cys Ser Arg Thr Cys Gly Gly  
 260 265 270  
 Gly Val Gln Tyr Thr Met Arg Glu Cys Asp Asn Pro Val Pro Lys Asn  
 275 280 285  
 Gly Gly Lys Tyr Cys Glu Gly Lys Arg Val Arg Tyr Arg Ser Cys Asn  
 290 295 300  
 Leu Glu Asp Cys Pro Asp Asn Asn Gly Lys Thr Phe Arg Glu Glu Gln  
 305 310 315 320  
 Cys Glu Ala His Asn Glu Phe Ser Lys Ala Ser Phe Gly Ser Gly Pro  
 325 330 335  
 Ala Val Glu Trp Ile Pro Lys Tyr Ala Gly Val Ser Pro Lys Asp Arg  
 340 345 350  
 Cys Lys Leu Ile Cys Gln Ala Lys Gly Ile Gly Tyr Phe Phe Val Leu  
 355 360 365  
 Gln Pro Lys Val Val Asp Gly Thr Pro Cys Ser Pro Asp Ser Thr Ser  
 370 375 380  
 Val Cys Val Gln Gly Gln Cys Val Lys Ala Gly Cys Asp Arg Ile Ile  
 385 390 395 400  
 Asp Ser Lys Lys Lys Phe Asp Lys Cys Gly Val Cys Gly Gly Asn Gly  
 405 410 415  
 Ser Thr Cys Lys Lys Ile Ser Gly Ser Val Thr Ser Ala Lys Pro Gly  
 420 425 430  
 Tyr His Asp Ile Ile Thr Ile Pro Ile Gly Ala Thr Asn Ile Glu Val  
 435 440 445  
 Lys Gln Arg Asn Gln Arg Gly Ser Arg Asn Asn Gly Ser Phe Leu Ala

450	Ile Lys Ala Ala Asp Gly Thr Tyr Ile Leu Asn Gly Asp Tyr Thr Leu	455	460
465	Ser Thr Leu Glu Gln Asp Ile Met Tyr Lys Gly Val Val Leu Arg Tyr	470	475
	485	490	495
Ser Gly Ser Ser Ala Ala Leu Glu Arg Ile Arg Ser Phe Ser Pro Leu			
500	505	510	
Lys Glu Pro Leu Thr Ile Gln Val Leu Thr Val Gly Asn Ala Leu Arg			
515	520	525	
Pro Lys Ile Lys Tyr Thr Tyr Phe Val Lys Lys Lys Lys Glu Ser Phe			
530	535	540	
Asn Ala Ile Pro Thr Phe Ser Ala Trp Val Ile Glu Glu Trp Gly Glu			
545	550	555	560
Cys Ser Lys Thr Cys Gly Lys Gly Tyr Lys Lys Arg Ser Leu Lys Cys			
565	570	575	
Leu Ser His Asp Gly Gly Val Leu Ser His Glu Ser Cys Asp Pro Leu			
580	585	590	
Lys Lys Pro Lys His Phe Ile Asp Phe Cys Thr Met Ala Glu Cys Ser			
595	600	605	

&lt;210&gt; 9

&lt;211&gt; 3145

&lt;212&gt; DNA

&lt;213&gt; Mus musculus

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (9) ... (1562)

&lt;400&gt; 9

gtgcctac atg gtc acg tcc ttc cta gat aat gga cac ggg gaa tgt ttg	50
Met Val Thr Ser Phe Leu Asp Asn Gly His Gly Glu Cys Leu	
1 5 10	
atg gac aag ccc cag aat cca atc aag ctc cct tct gat ctt ccc ggt	98
Met Asp Lys Pro Gln Asn Pro Ile Lys Leu Pro Ser Asp Leu Pro Gly	
15 20 25 30	
acc ttg tac gat gcc aac cgc cag tgt cag ttt aca ttc gga gag gaa	146
Thr Leu Tyr Asp Ala Asn Arg Gln Cys Gln Phe Thr Phe Gly Glu Glu	
35 40 45	
tcc aag cac tgc cct gat gca gcc agc aca tgt act acc ctg tgg tgc	194
Ser Lys His Cys Pro Asp Ala Ala Ser Thr Cys Thr Thr Leu Trp Cys	
50 55 60	
act ggc acc tcc ggt ggc tta ctg gtg tgc caa aca aaa cac ttc cct	242
Thr Gly Thr Ser Gly Gly Leu Leu Val Cys Gln Thr Lys His Phe Pro	
65 70 75	
tgg gca gat ggc acc agc tgt gga gaa ggg aag tgg tgt gtc agt ggc	290
Trp Ala Asp Gly Thr Ser Cys Gly Glu Gly Lys Trp Cys Val Ser Gly	
80 85 90	
aag tgc gtg aac aag aca gac atg aag cat ttt gct act cct gtt cat	338
Lys Cys Val Asn Lys Thr Asp Met Lys His Phe Ala Thr Pro Val His	
95 100 105 110	



gga agc tgg gga cca tgg gga ccg tgg gga gac tgc tca aga acc tgt	386
Gly Ser Trp Gly Pro Trp Gly Pro Trp Gly Asp Cys Ser Arg Thr Cys	
115 120 125	
ggt ggt gga gtt caa tac aca atg aga gaa tgt gac aac cca gtc cca	434
Gly Gly Gly Val Gln Tyr Thr Met Arg Glu Cys Asp Asn Pro Val Pro	
130 135 140	
aag aac gga ggg aag tac tgt gaa ggc aaa cga gtc cgc tac agg tcc	482
Lys Asn Gly Gly Lys Tyr Cys Glu Gly Lys Arg Val Arg Tyr Arg Ser	
145 150 155	
tgt aac atc gag gac tgt cca gac aat aac gga aaa acg ttc aga gag	530
Cys Asn Ile Glu Asp Cys Pro Asp Asn Asn Gly Lys Thr Phe Arg Glu	
160 165 170	
gag cag tgc gag gcg cac aat gag ttt tcc aaa gct tcc ttt ggg aat	578
Glu Gln Cys Glu Ala His Asn Glu Phe Ser Lys Ala Ser Phe Gly Asn	
175 180 185 190	
gag ccc act gta gag tgg aca ccc aag tac gcc ggc gtc tcg cca aag	626
Glu Pro Thr Val Glu Trp Thr Pro Lys Tyr Ala Gly Val Ser Pro Lys	
195 200 205	
gac agg tgc aag ctc acc tgt gaa gcc aaa ggc att ggc tac ttt ttc	674
Asp Arg Cys Lys Leu Thr Cys Glu Ala Lys Gly Ile Gly Tyr Phe Phe	
210 215 220	
gtc tta cag ccc aag gtt gta gat ggc act ccc tgt agt cca gac tct	722
Val Leu Gln Pro Lys Val Val Asp Gly Thr Pro Cys Ser Pro Asp Ser	
225 230 235	
acc tct gtc tgt gtg caa ggg cag tgt gtg aaa gct ggc tgt gat cgc	770
Thr Ser Val Cys Val Gln Gly Gln Cys Val Lys Ala Gly Cys Asp Arg	
240 245 250	
atc ata gac tcc aaa aag aag ttt gat aag tgt ggc gtt tgt gga gga	818
Ile Ile Asp Ser Lys Lys Lys Phe Asp Lys Cys Gly Val Cys Gly Gly	
255 260 265 270	
aac ggt tcc aca tgc aag aag atg tca gga ata gtc act agt aca aga	866
Asn Gly Ser Thr Cys Lys Lys Met Ser Gly Ile Val Thr Ser Thr Arg	
275 280 285	
cct ggg tat cat gac att gtc aca att cct gct gga gcc acc aac att	914
Pro Gly Tyr His Asp Ile Val Thr Ile Pro Ala Gly Ala Thr Asn Ile	
290 295 300	
gaa gtg aaa cat cgg aat caa agg ggg tcc aga aac aat ggc agc ttt	962
Glu Val Lys His Arg Asn Gln Arg Gly Ser Arg Asn Asn Gly Ser Phe	
305 310 315	
ctg gct att aga gcc gct gat ggt acc tat att ctg aat gga aac ttc	1010
Leu Ala Ile Arg Ala Ala Asp Gly Thr Tyr Ile Leu Asn Gly Asn Phe	
320 325 330	

act ctg tcc aca cta gag caa gac ctc acc tac aaa ggt act gtc tta	1058
Thr Leu Ser Thr Leu Glu Gln Asp Leu Thr Tyr Lys Gly Thr Val Leu	
335 340 345 350	
agg tac agt ggt tcc tcg gct gcg ctg gaa aga atc cgc agc ttt agt	1106
Arg Tyr Ser Gly Ser Ser Ala Ala Leu Glu Arg Ile Arg Ser Phe Ser	
355 360 365	
cca ctc aaa gaa ccc tta acc atc cag gtt ctt atg gta ggc cat gct	1154
Pro Leu Lys Glu Pro Leu Thr Ile Gln Val Leu Met Val Gly His Ala	
370 375 380	
ctc cga ccc aaa att aaa ttc acc tac ttt atg aag aag aag aca gag	1202
Leu Arg Pro Lys Ile Lys Phe Thr Tyr Phe Met Lys Lys Lys Thr Glu	
385 390 395	
tca ttc aac gcc att ccc aca ttt tct gag tgg gtg att gaa gag tgg	1250
Ser Phe Asn Ala Ile Pro Thr Phe Ser Glu Trp Val Ile Glu Glu Trp	
400 405 410	
ggg gag tgc tcc aag aca tgc ggc tca ggt tgg cag aga aga gta gtg	1298
Gly Glu Cys Ser Lys Thr Cys Gly Ser Gly Trp Gln Arg Arg Val Val	
415 420 425 430	
cag tgc aga gac att aac gga cac cct gct tcc gaa tgt gca aag gaa	1346
Gln Cys Arg Asp Ile Asn Gly His Pro Ala Ser Glu Cys Ala Lys Glu	
435 440 445	
gtg aag cca gcc agt acc aga cct tgt gca gac ctt cct tgc cca cac	1394
Val Lys Pro Ala Ser Thr Arg Pro Cys Ala Asp Leu Pro Cys Pro His	
450 455 460	
tgg cag gtg ggg gat tgg tca cca tgt tcc aaa act tgc ggg aag ggt	1442
Trp Gln Val Gly Asp Trp Ser Pro Cys Ser Lys Thr Cys Gly Lys Gly	
465 470 475	
tac aag aag aga acc ttg aaa tgt gtg tcc cac gat ggg ggc gtg tta	1490
Tyr Lys Lys Arg Thr Leu Lys Cys Val Ser His Asp Gly Gly Val Leu	
480 485 490	
tca aat gag agc tgt gat cct ttg aag aag cca aag cat tac att gac	1538
Ser Asn Glu Ser Cys Asp Pro Leu Lys Lys Pro Lys His Tyr Ile Asp	
495 500 505 510	
ttt tgc aca ctg aca cag tgc agt taagaggcgt tagaggacaa ggtagcgtgg	1592
Phe Cys Thr Leu Thr Gln Cys Ser	
515	
ggaggggctg atacactgag tgcaagagta ctggagggat ccagtgagtc aaaccagtaa	1652
gcagtgaggt gtggcaagga ggtgtgtgta ggggatacat agcaaaggag gtagatcagg	1712
acactaccct gccagttaaca ttctgataag gtagttaatg aggcacagta gcatctgaaa	1772
gaccatacag agcactaagg agcccccagg cactattagt atctcttttc ttatatctat	1832
cgcccaaata attttcagag tctggcagaa gccctgttgc actgtactaa ctagatactt	1892
cttatcacaa agattgggaa aggcaaagca gaaagatggt aagactgggt ttcaaacaag	1952
gcttggtttc aatcactgga ggcaaggagg aggggacaaa caagatcatt attcgaagtc	2012
gctggttgct gtggtttttac ggaaggttga tgcattcatt ctatcaacag tgaaaagttc	2072
agcttggttca acgtgacaga aaggctcatc tccgtgaaag agctcctgat ttcttcttac	2132

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accatctcag ttcttaacta tagttcatgt tgaggtagaa acaattcatc tatttataaa 2192
atgtacattg gaaaaaaaaa gtgaagttta tgaggtagac ataaaaactg aaggaaacaa 2252
tgagcaacat gcctcctgct ttgcttcctc ctgaggtaaa cctgcctggg gattgagggt 2312
gtttaagatt atccatggct cacaagaggc agtaaaataa tacatgttgt gccagagtta 2372
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tggtgaatgt ctgttcagct cttctactga gagagaatat gactgtttcc atatgtatat 2552
gtatatagta aaatatgtta ctatgaattg catgtacttt ataagtattg gtgtgtctgt 2612
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tggaactcaa gacagtttta aattttgggt aaatgaactg tatttcctgt ttatagacgt 2912
actaataaaa aagaagttga tgatgtcttt agtggtaaga ttgttactaa tgtggttggc 2972
aaattgctgt aaagagccag atagtaagca tttatggcat tgtaggctat ctttcctgcc 3032
acaaccatgt gacagtgagt gctttgtagg actgagagca gccataaatg acatgtaaat 3092
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<210> 10

<211> 518

<212> PRT

<213> Mus musculus.

<400> 10

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 20          25          30
Tyr Asp Ala Asn Arg Gln Cys Gln Phe Thr Phe Gly Glu Glu Ser Lys
 35          40          45
His Cys Pro Asp Ala Ala Ser Thr Cys Thr Thr Leu Trp Cys Thr Gly
 50          55          60
Thr Ser Gly Gly Leu Leu Val Cys Gln Thr Lys His Phe Pro Trp Ala
 65          70          75          80
Asp Gly Thr Ser Cys Gly Glu Gly Lys Trp Cys Val Ser Gly Lys Cys
 85          90          95
Val Asn Lys Thr Asp Met Lys His Phe Ala Thr Pro Val His Gly Ser
100          105          110
Trp Gly Pro Trp Gly Pro Trp Gly Asp Cys Ser Arg Thr Cys Gly Gly
115          120          125
Gly Val Gln Tyr Thr Met Arg Glu Cys Asp Asn Pro Val Pro Lys Asn
130          135          140
Gly Gly Lys Tyr Cys Glu Gly Lys Arg Val Arg Tyr Arg Ser Cys Asn
145          150          155          160
Ile Glu Asp Cys Pro Asp Asn Asn Gly Lys Thr Phe Arg Glu Glu Gln
165          170          175
Cys Glu Ala His Asn Glu Phe Ser Lys Ala Ser Phe Gly Asn Glu Pro
180          185          190
Thr Val Glu Trp Thr Pro Lys Tyr Ala Gly Val Ser Pro Lys Asp Arg
195          200          205
Cys Lys Leu Thr Cys Glu Ala Lys Gly Ile Gly Tyr Phe Phe Val Leu
210          215          220
Gln Pro Lys Val Val Asp Gly Thr Pro Cys Ser Pro Asp Ser Thr Ser
225          230          235          240
Val Cys Val Gln Gly Gln Cys Val Lys Ala Gly Cys Asp Arg Ile Ile
245          250          255
Asp Ser Lys Lys Lys Phe Asp Lys Cys Gly Val Cys Gly Gly Asn Gly

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260				265				270							
Ser	Thr	Cys	Lys	Lys	Met	Ser	Gly	Ile	Val	Thr	Ser	Thr	Arg	Pro	Gly
275				280				285							
Tyr	His	Asp	Ile	Val	Thr	Ile	Pro	Ala	Gly	Ala	Thr	Asn	Ile	Glu	Val
290				295				300							
Lys	His	Arg	Asn	Gln	Arg	Gly	Ser	Arg	Asn	Asn	Gly	Ser	Phe	Leu	Ala
305	310				315				320						
Ile	Arg	Ala	Ala	Asp	Gly	Thr	Tyr	Ile	Leu	Asn	Gly	Asn	Phe	Thr	Leu
325				330				335							
Ser	Thr	Leu	Glu	Gln	Asp	Leu	Thr	Tyr	Lys	Gly	Thr	Val	Leu	Arg	Tyr
340				345				350							
Ser	Gly	Ser	Ser	Ala	Ala	Leu	Glu	Arg	Ile	Arg	Ser	Phe	Ser	Pro	Leu
355				360				365							
Lys	Glu	Pro	Leu	Thr	Ile	Gln	Val	Leu	Met	Val	Gly	His	Ala	Leu	Arg
370				375				380							
Pro	Lys	Ile	Lys	Phe	Thr	Tyr	Phe	Met	Lys	Lys	Lys	Thr	Glu	Ser	Phe
385	390				395				400						
Asn	Ala	Ile	Pro	Thr	Phe	Ser	Glu	Trp	Val	Ile	Glu	Glu	Trp	Gly	Glu
405				410				415							
Cys	Ser	Lys	Thr	Cys	Gly	Ser	Gly	Trp	Gln	Arg	Arg	Val	Val	Gln	Cys
420				425				430							
Arg	Asp	Ile	Asn	Gly	His	Pro	Ala	Ser	Glu	Cys	Ala	Lys	Glu	Val	Lys
435				440				445							
Pro	Ala	Ser	Thr	Arg	Pro	Cys	Ala	Asp	Leu	Pro	Cys	Pro	His	Trp	Gln
450				455				460							
Val	Gly	Asp	Trp	Ser	Pro	Cys	Ser	Lys	Thr	Cys	Gly	Lys	Gly	Tyr	Lys
465	470				475				480						
Lys	Arg	Thr	Leu	Lys	Cys	Val	Ser	His	Asp	Gly	Gly	Val	Leu	Ser	Asn
485				490				495							
Glu	Ser	Cys	Asp	Pro	Leu	Lys	Lys	Pro	Lys	His	Tyr	Ile	Asp	Phe	Cys
500				505				510							
Thr	Leu	Thr	Gln	Cys	Ser										
515															

&lt;210&gt; 11

&lt;211&gt; 1110

&lt;212&gt; DNA

&lt;213&gt; Mus musculus

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (323)...(1108)

&lt;400&gt; 11

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ccgagctcct	gccctagagt	cgactgggct	cccggccgcg	tgggacagac	agacggacag	180
ccagccctgc	gagggcgcg	ggaccggg	gaggtgtgt	aggaggagac	cgaggagggg	240
ggctgggctg	gggctggggc	cgcgcggca	agagagacat	gcgattggtg	accaagccga	300
gcggacggac	agcgcgccc	ag atg cag	gtg agc gag	agg atg ctg	gca ggg	352
Met Gln Val Ser Glu Arg Met Leu Ala Gly						
1		5		10		

ggt atg aga	agc atg	ccc agc	ccc ctc	ctg gcc	tgc tgg	cag ccc	atc	400
Gly Met Arg	Ser Met	Pro Ser	Pro Leu	Leu Ala	Cys Trp	Gln Pro	Ile	
15		20		25				

ctc ctg ctg gta ctg ggc tca gtg ctg tca ggc tct gct aca ggc tgc	448
Leu Leu Leu Val Leu Gly Ser Val Leu Ser Gly Ser Ala Thr Gly Cys	
30 35 40	
ccg ccc cgc tgc gag tgc tca gcg cag gac cga gcc gtg ctc tgc cac	496
Pro Pro Arg Cys Glu Cys Ser Ala Gln Asp Arg Ala Val Leu Cys His	
45 50 55	
cgc aaa cgc ttt gtg gcg gtg ccc gag ggc atc ccc acc gag act cgc	544
Arg Lys Arg Phe Val Ala Val Pro Glu Gly Ile Pro Thr Glu Thr Arg	
60 65 70	
ctg ctg gac ctg ggc aaa aac cgc atc aag aca ctc aac cag gac gag	592
Leu Leu Asp Leu Gly Lys Asn Arg Ile Lys Thr Leu Asn Gln Asp Glu	
75 80 85 90	
ttt gcc agc ttc cca cac ctg gag gag cta gaa ctc aat gaa aac atc	640
Phe Ala Ser Phe Pro His Leu Glu Glu Leu Glu Leu Asn Glu Asn Ile	
95 100 105	
gtg agc gcc gtg gag cca ggc gcc ttc aac aac ctc ttc aac ctg agg	688
Val Ser Ala Val Glu Pro Gly Ala Phe Asn Asn Leu Phe Asn Leu Arg	
110 115 120	
act ctg ggg ctg cgc agc aac cgc ctg aag ctt atc ccg ctg ggc gtc	736
Thr Leu Gly Leu Arg Ser Asn Arg Leu Lys Leu Ile Pro Leu Gly Val	
125 130 135	
ttc acc ggc ctc agc aac ttg acc aag ctg gac atc agt gag aac aag	784
Phe Thr Gly Leu Ser Asn Leu Thr Lys Leu Asp Ile Ser Glu Asn Lys	
140 145 150	
atc gtc atc ctg cta gac tac atg ttc caa gac cta tac aac ctc aag	832
Ile Val Ile Leu Leu Asp Tyr Met Phe Gln Asp Leu Tyr Asn Leu Lys	
155 160 165 170	
tcg ctg gag gtc ggc gac aac gac ctc gtc tac atc tcc cat cga gcc	880
Ser Leu Glu Val Gly Asp Asn Asp Leu Val Tyr Ile Ser His Arg Ala	
175 180 185	
ttc agc ggc ctc aac agc ctg gaa cag ctg acg ctg gag aaa tgc aat	928
Phe Ser Gly Leu Asn Ser Leu Glu Gln Leu Thr Leu Glu Lys Cys Asn	
190 195 200	
ctg acc tcc atc ccc acg gag gcg ctc tcc cac ctg cac ggc ctc atc	976
Leu Thr Ser Ile Pro Thr Glu Ala Leu Ser His Leu His Gly Leu Ile	
205 210 215	
gtc ctg cgg cta cga cat ctc aac atc aat gcc atc agg gac tac tcc	1024
Val Leu Arg Leu Arg His Leu Asn Ile Asn Ala Ile Arg Asp Tyr Ser	
220 225 230	
ttc aag agg ctg tac cga ctt aag gtc tta gag atc tcc cac tgg ccc	1072
Phe Lys Arg Leu Tyr Arg Leu Lys Val Leu Glu Ile Ser His Trp Pro	
235 240 245 250	
tac ctg gac acc ata acc ccc cgg acg cgt ggg tcg ac	1110

Tyr Leu Asp Thr Ile Thr Pro Arg Thr Arg Gly Ser  
 255 260

<210> 12  
 <211> 262  
 <212> PRT  
 <213> Mus musculus

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 Ser Val Leu Ser Gly Ser Ala Thr Gly Cys Pro Pro Arg Cys Glu Cys  
 35 40 45  
 Ser Ala Gln Asp Arg Ala Val Leu Cys His Arg Lys Arg Phe Val Ala  
 50 55 60  
 Val Pro Glu Gly Ile Pro Thr Glu Thr Arg Leu Leu Asp Leu Gly Lys  
 65 70 75 80  
 Asn Arg Ile Lys Thr Leu Asn Gln Asp Glu Phe Ala Ser Phe Pro His  
 85 90 95  
 Leu Glu Glu Leu Glu Leu Asn Glu Asn Ile Val Ser Ala Val Glu Pro  
 100 105 110  
 Gly Ala Phe Asn Asn Leu Phe Asn Leu Arg Thr Leu Gly Leu Arg Ser  
 115 120 125  
 Asn Arg Leu Lys Leu Ile Pro Leu Gly Val Phe Thr Gly Leu Ser Asn  
 130 135 140  
 Leu Thr Lys Leu Asp Ile Ser Glu Asn Lys Ile Val Ile Leu Leu Asp  
 145 150 155 160  
 Tyr Met Phe Gln Asp Leu Tyr Asn Leu Lys Ser Leu Glu Val Gly Asp  
 165 170 175  
 Asn Asp Leu Val Tyr Ile Ser His Arg Ala Phe Ser Gly Leu Asn Ser  
 180 185 190  
 Leu Glu Gln Leu Thr Leu Glu Lys Cys Asn Leu Thr Ser Ile Pro Thr  
 195 200 205  
 Glu Ala Leu Ser His Leu His Gly Leu Ile Val Leu Arg Leu Arg His  
 210 215 220  
 Leu Asn Ile Asn Ala Ile Arg Asp Tyr Ser Phe Lys Arg Leu Tyr Arg  
 225 230 235 240  
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 245 250 255  
 Pro Arg Thr Arg Gly Ser  
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<210> 13  
 <211> 1027  
 <212> DNA  
 <213> Mus musculus

<220>  
 <221> CDS  
 <222> (106)...(630)

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Met Ala Gly Ser

1

ccg ctg ctc tgc ggg ccg cgg gcc ggg ggc gtc ggc att ttg gtg ctg	165
Pro Leu Leu Cys Gly Pro Arg Ala Gly Gly Val Gly Ile Leu Val Leu	
5 10 15 20	
ctg ctc ttg ggc ctt ctg agg ctg ccc ccc acc ctg tca gcg agg ccc	213
Leu Leu Leu Gly Leu Leu Arg Leu Pro Pro Thr Leu Ser Ala Arg Pro	
25 30 35	
gtg aag gag ccc cgc agt ctg agc gca gca tcc gcg ccc ttg gtt gag	261
Val Lys Glu Pro Arg Ser Leu Ser Ala Ala Ser Ala Pro Leu Val Glu	
40 45 50	
acg agc act ccc ctc cgc ttg cgt cgg gcc gtg ccc cga gga gag gcg	309
Thr Ser Thr Pro Leu Arg Leu Arg Arg Ala Val Pro Arg Gly Glu Ala	
55 60 65	
gcg ggt gcg gtg cag gag ctg gcg cgg gcg ctg gcg cac ctg ctg gag	357
Ala Gly Ala Val Gln Glu Leu Ala Arg Ala Leu Ala His Leu Leu Glu	
70 75 80	
gcc gag aga cag gaa cgc gcg cgt gct gag gcg cag gag gct gag gat	405
Ala Glu Arg Gln Glu Arg Ala Arg Ala Glu Ala Gln Glu Ala Glu Asp	
85 90 95 100	
cag cag gcg cgt gtc ctg gcg cag ctg ctg cgc gcc tgg ggc tct ccg	453
Gln Gln Ala Arg Val Leu Ala Gln Leu Leu Arg Ala Trp Gly Ser Pro	
105 110 115	
cgt gcc tcg gac ccg ccc ttg gcc ccc gac gat gac ccg gac gct cca	501
Arg Ala Ser Asp Pro Pro Leu Ala Pro Asp Asp Asp Pro Asp Ala Pro	
120 125 130	
gct gca cag ctc gcc cgt gct ctg ctc cga gct cgc cta gac ccc ggc	549
Ala Ala Gln Leu Ala Arg Ala Leu Leu Arg Ala Arg Leu Asp Pro Gly	
135 140 145	
ccc cag tgt atg atg atg gcc cca ctg gcc cag acg tcg agg atg ccg	597
Pro Gln Cys Met Met Met Ala Pro Leu Ala Gln Thr Ser Arg Met Pro	
150 155 160	
gcg acg aga ctc ctg acg tgg acc ctg agc tgc tgaggtactt gctagggcgg	650
Ala Thr Arg Leu Leu Thr Trp Thr Leu Ser Cys	
165 170 175	
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gtggaccagg atttgggtcc cgaggtgccc cctgagaacg tactgggggc tctgctacgc	770
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ccagcacgtc caaggctgct taccacagca acctcccatc ccctgagccc tcaataaatg	950
ccatctgtag caaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa	1010
aaaaaaaaaa aaaaaaa	1027

&lt;210&gt; 14

&lt;211&gt; 175

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 14

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Ile	Leu	Val	Leu	Leu	Leu	Leu	Gly	Leu	Leu	Arg	Leu	Pro	Pro	Thr	Leu
			20					25						30	
Ser	Ala	Arg	Pro	Val	Lys	Glu	Pro	Arg	Ser	Leu	Ser	Ala	Ala	Ser	Ala
			35					40						45	
Pro	Leu	Val	Glu	Thr	Ser	Thr	Pro	Leu	Arg	Leu	Arg	Arg	Ala	Val	Pro
			50					55						60	
Arg	Gly	Glu	Ala	Ala	Gly	Ala	Val	Gln	Glu	Leu	Ala	Arg	Ala	Leu	Ala
65						70				75					80
His	Leu	Leu	Glu	Ala	Glu	Arg	Gln	Glu	Arg	Ala	Arg	Ala	Glu	Ala	Gln
					85					90					95
Glu	Ala	Glu	Asp	Gln	Gln	Ala	Arg	Val	Leu	Ala	Gln	Leu	Leu	Arg	Ala
			100						105					110	
Trp	Gly	Ser	Pro	Arg	Ala	Ser	Asp	Pro	Pro	Leu	Ala	Pro	Asp	Asp	Asp
			115					120						125	
Pro	Asp	Ala	Pro	Ala	Ala	Gln	Leu	Ala	Arg	Ala	Leu	Leu	Arg	Ala	Arg
			130				135							140	
Leu	Asp	Pro	Gly	Pro	Gln	Cys	Met	Met	Met	Ala	Pro	Leu	Ala	Gln	Thr
145						150				155					160
Ser	Arg	Met	Pro	Ala	Thr	Arg	Leu	Leu	Thr	Trp	Thr	Leu	Ser	Cys	
				165					170					175	